REMARKS

Applicants thank the Examiner for the thorough examination given the present application.

Claims 2, 4-9, 11-13 and 15-19 are pending, and claims 1 and 17 are independent.

Claim Rejections under 35 USC §§ 102/103

The Examiner has rejected the claims under 35 USC 102/103 as follows:

(A) Claims 2, 4, 5, 9, 11, 13, 15 and 17-19 under 35 USC 102(b) as anticipated by or in the alternative under 35 USC 103(a) as obvious over Mizoguchi '468;
(B) Claims 6-9, 12 and 16-18 under 35 USC 103(a) as obvious over Mizoguchi '468 in view of Honda '429;
(C) Claims 6-9 under 35 USC 103(a) as obvious over Mizoguchi '468 in view of Ijima '469;
(D) Claims 2, 4, 5, 9, 11, 13, 15 and 17-19 under 35 USC 103(a) as obvious over Mizoguchi '468 in view of Minemura '095, Ikeda '663, Nakagawa '529 or Okamoto '678;
(E) Claims 6-9, 12 and 16-18 under 35 USC 103(a) as obvious over Mizoguchi '468 in view of Minemura '095, Ikeda '663, Nakagawa '529 or Okamoto '678 and further in view of Honda '429;
(F) Claims 6-9 under 35 USC 103(a) as obvious over Mizoguchi '468 in view of Minemura '095, Ikeda '663, Nakagawa '529 or Okamoto '678 and further in view of Ijima '469; and
(G) Claims 2, 4-9, 11-13 and 15-19 under 35 USC 103(a) as obvious over Honda '429 in view of Minemura '095, Ikeda '663, Nakagawa '529 or Okamoto '678.

Rejections A-G are respectfully traversed.

With respect to the anticipation aspect of Rejection A, Applicants respectfully submit that the presently claimed invention is not anticipated by Mizoguchi.

Mizoguchi teaches a woven or knitted fabric layer made of ultra fine fibers having a fineness of 3 or less, more preferably 0.5 to 3 denier. This is in distinction to the present invention which teaches a range of fineness of 0.01 to 0.3 denier. The analysis for whether a range is anticipated is discussed in MPEP 2131.03 as follows:

> When the prior art discloses a range which touches or overlaps the claimed range, but no specific examples falling within the claimed range are disclosed, a case by case determination must be made as to anticipation. In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with "sufficient specificity to constitute an anticipation under the statute." What constitutes a "sufficient specificity" is fact dependent. ***If the claims are directed to a narrow range, and the reference teaches a broad range, depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with "sufficient specificity" to constitute an anticipation of the claims.*** (Emphasis added).

MPEP 2131.03 goes on to discuss the case of *Atofina v. Great Lakes Chem. Corp*, 441 F.3d 991, 999, 78 USPQ2d 1417, 1423 (Fed. Cir. 2006). In *Atofina*, the Federal Circuit found that the prior art reference did not anticipate the claimed range even though the claimed range was more like the ranges disclosed in the prior art reference than is found in the present facts. The prior art reference in *Atofina* taught a broad temperature range of 100-500C and a preferred range of 150-350C, whereas the claimed range was 330-450C. Based on these two ranges, the prior art reference did ***not*** anticipate the claimed range, even though the claimed range overlapped with the preferred range in the prior art. The Examiner will note that in the present case, there is no overlap of the claimed range of 0.01 to 0.3 denier with the preferred range of 0.5 to 3 denier of Mizoguchi. As such, the inventive composite sheet is not anticipated by Mizoguchi for reasoning which is similar to that of *Atofina*.

In addition, Mizoguchi fails to anticipate the inventive composite sheet which requires that the non-woven fabric layer is made of a polyester based resin or a nylon based resin and that the woven or knitted fabric layer made of ultra fine fibers is made of ***the same resin*** as the non-woven fabric. First, it is noted that none of the Examples of Mizoguchi were made with the non-woven fabric layer made of a polyester based resin or a nylon based resin and a woven or knitted fabric layer made of ultra fine fibers of ***the same resin*** as the non-woven fabric layer. Second, it is noted that Mizoguchi teaches such a broad range of materials that Mizoguchi does not place into the possession of the public, the inventive non-woven fabric layer being made of a polyester based resin or a nylon based resin and woven or knitted fabric layer of ultra fine fibers being made of ***the same resin*** as the non-woven fabric. The Examiner appears to rely on the teachings

of Mizoguchi at column 7, lines 36-60 for this feature. In this section, Mizoguchi teaches that the fiber types include "viscose rayon fibers, cuprammonium rayon fibers, cellulose acetate fibers, polyamide fibers, polyester fibers, polyacrylic fibers, polyolefin fibers ***or the like***." (Emphasis added). In view of the phrase "or the like", this list of possible fiber types is open ended and includes an indeterminate number of types. Such a disclosure cannot support an anticipation rejection.

Based on the foregoing, it is clear that the anticipation component of Rejection A is untenable and should be withdrawn.

This leaves the various obviousness rejections set forth in Rejections A-G. According to the obviousness analysis set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966) (and reaffirmed in *KSR International Co. v. Teleflex Inc.* (KSR), 82 USPQ2d 1385 (2007)), the Examiner must consider objective evidence of unexpected results. Applicants discuss the evidence which has been made of record, and clearly establishes that the inventive composite sheet has unexpected results over the two primary references, Mizoguchi and Honda.

By way of the claimed invention, the composite sheet possesses excellent softness, uniformity of color, excellent elongation and form stability as shown by the previously filed Declarations (filed November 20, 2007 and January 7, 2009).

Mizoguchi relates to a composite fabric composed of (A) a woven or knitted fabric constituent and (B) at least one non-woven fabric constituent, which the non-woven fabric constituent (B) consists of numerous fibrous bundles (1) and numerous individual fibers (2). Numerous fibrous bundles (1) are composed of a plurality of individual fibers arranged parallel to each other, and varying in the number of the individual fibers from which the bundles are formed. Numerous individual fibers (2) are independent from each other and from the fibrous bundles (1). Also, the woven fabric layer (A) has a denier of 3 or less, more preferably 0.5 to 3. The fibrous bundles (1) of the non-woven fabric layer (B) has a denier of 1-200, more preferably 2-60 and the individual fibers (2) of the non-woven fabric layer (B) has a denier of 0.5 or less, more preferably 0.05-0.5, most preferably 0.01-0.3.

Honda discloses a soft and strong composite sheet for artificial leather that comprises (A) a woven or knitted fabric layer and (B) a non-woven layer interwined with the fabric. The (A)

layer comprises a high twist yarn and the (B) layer has in it a number of fibers of a length greater than 20mm.

The claimed invention is patentably distinct from Mizoguchi and Honda for at least following reasons:

First, the non-woven and woven fabric layers of the claimed invention are distinguishable from those of Mizoguchi in terms of layer composition.

Specifically, the claimed invention recites that a non-woven fabric layer is made of ultra fine fibers of a polyester based resin or a nylon based resin and a woven or knitted fabric layer is made of ultra fine fibers having the same resin as the non-woven fabric layer.

Mizoguchi exemplifies the non-woven and woven fabric layers at column 7, lines 35-59. However, Mizoguchi fails to explicitly disclose that the non-woven and woven fabric layers have the same materials. For instance, Examples of Mizoguchi employ different materials for both layers. Particularly, in Example 1 of Mizoguchi, the non-woven fabric layer was made of cellulose and the woven fabric layer was made of nylon. In Example 8 of Mizoguchi, the non-woven fabric layer was made of nylon and the woven fabric layer was made of polyethylene terephthalate (PET). Therefore, it is clear that the composite sheet of Mizoguchi utilizes different resins for the non-woven and woven fabric layers.

In connection with this part of rejection, the Examiner has indicated at page 16 of the outstanding Office Action that "it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics."

However, it is respectfully submitted that the Declaration filed January 7, 2009 shows that by utilizing the same resin for both the non-woven and woven fabric layers (Sample 1: the present invention), dyeing compatibility between the non-woven and woven fabric layers results in a deeper color. Also, excellent appearance (reduced roughness), softness and touchiness are revealed. However, when the different resins are used for both fabric layers (Sample 2), the properties of Sample 2 are poorer than those of Sample 1 of the present invention. See the November 20, 2007 Declaration at page 3 and Exhibit (Actual Samples 1 and 2). On this matter, the Examiner states:

> the use of the same resin for both the nonwoven and woven fabric layers

> necessarily results in deeper, weaker, or identical color as well as better, worse, or identical appearance, softness and touchiness. (See the paragraph bridging pages 16-17 of the outstanding Office Action).

Applicants respectfully disagree. Based on the teachings of the cited references, there are various embodiments in Mizoguchi and Honda, each of which is taught to be equivalent. One skilled in the art would not have an expectation that there would be much variance in the properties based on the types of resins used in the nonwoven and woven fabric layers based on these teachings. As such, it is clear that the improvements shown in the January 7, 2009 Declaration are unexpected.

In the fiber industry, the difference of "0.1" value with regard to the deep color (L*) and friction coefficient (toughness) leads to the significant results. The present invention using the same resins for non-woven and woven layers reveals superior effects in color data (44.9 *v.* 47.0) and toughness (1.7 & 1.3 *v.* 1.2 & 1.1). Therefore, it should be recognized that such results are unexpected. Further, the previously filed Exhibit shows excellent softness and touchness of composite sheet of the present invention. Therefore, Applicants request again that the claimed invention must be viewed as a selection invention by choosing specific conditions (same resin components for both fabric layers) which give superior results.

The Examiner goes on to state:

> It is further noted that some claims are rejected under 35 USC 102(b). (See the paragraph bridging pages 16-17 of the outstanding Office Action).

However, as mentioned above, Mizoguchi does not anticipate the present invention, and as such, the unexpected results necessarily becomes part of the analysis.

Similarly, the Honda patent fails to disclose or suggest that the ultrafine fiber constituting the non-woven fabric layer and the ultrafine fiber constituting the woven (knitted) fabric layer are made by the same resin such as those of Sample 1 of the executed January 7, 2009

Declaration. Further, all of these references are not related to a composite sheet but rather only to a woven fabric. Therefore, their combination cannot arrive at the present invention.

Further, Mizoguchi and Honda fail to disclose or suggest the claimed stitching strength, elongation and stiffness of the composite sheet as recited in claim 17.

Second, the claimed invention is patentably distinct from Mizoguchi and Honda in terms of fineness size of non-woven and woven fabric layers.

The claimed invention employs a woven or knitted fabric layer made of ultra fine fiber having a fineness of 0.01 to 0.3 denier. Also, in the claimed invention, the fineness of the ultra fine fibers of the woven or knitted fabric layer is not more than the fineness of the ultra fine fibers of the non-woven fabric layer.

Mizoguchi discloses the fineness of the woven fabric fiber layer is 3 or less denier, more preferably 0.5 to 3 denier. See column 8, lines 51-57 of Mizoguchi. However, although the claimed range "0.01 to 0.3" appears to be within the Mizoguchi range of 3 or less, Mizoguchi fails to even specifically recognize the claimed range "0.01 to 0.3" as a preferable one. Also, the fineness of the fibrous bundle of non-woven fabric layer of Mizoguchi is 1 to 200, more preferably 2 to 60. The fineness of the individual fine fibers from which the fibrous bundles are formed has a denier of 0.5 or less, more preferably 0.005 to 0.5, or most preferably 0.01 to 0.3. In fact, the fineness of the woven or knitted fabric layer of Mizoguchi is generally larger than that of the non-woven fabric layer of Mizoguchi. Thus, Mizoguchi fails to disclose or suggest the claimed features that the fineness of the ultra fine fibers of the woven or knitted fabric layer is not more than the fineness of the ultra fine fibers of the non- woven fabric layer.

Further, in the case of Honda, the fineness of yarn constituting the woven or knitted fabric layer is more than 2 denier (please refer to the Examples showing 76 denier/36 filaments). Also, the fineness of the yarn constituting the non-woven fabric layer is less than 0.8 denier (please refer to Col. 3, lines 52-56 of Honda). Accordingly, in Honda, the fineness of the yarn constituting the woven or knitted fabric layer of is always larger than the fineness of the yarn constituting the non-woven fabric. Thus, Honda fails to disclose or suggest the claimed features.

In connection with this issue, the Examiner has indicated at page 14 of the outstanding Office Action that "*Honda discloses that the non-woven fabric layer may be made of ultra fine*

fibers having a fineness of between 0.01 to 0.3 denier (column 3, lines 52-62) while Minemura, Ikeda, Nakagawa, and Okamoto each disclose that the woven or knitted fabric layer may be made of ultra fine fibers having a fineness of between 0.01 to 0.3 denier (see above). Therefore, the applied prior art teaches that the fineness of the ultra fine fibers of the woven or knitted fabric layer may be not more than the fineness of the ultra fine fibers of the nonwoven fabric layer."

However, if Honda (using 2 or more denier of woven fabric layer) would combine the secondary references including Minemura, *Ikeda, Nakagawa, and Okamoto* (using the non-woven fabric layer having a smaller denier than the woven-fabric layer), a composite sheet Honda cannot achieve its own intended purpose because the woven fabric layer fineness of Honda should be larger than the non-woven fabric layer fineness of Honda.

Also, it is respectfully submitted that the Declaration filed on November 20, 2007 evidences that by specifying the claimed fineness range for both layers (Sample 1: the present invention), superior properties such as richness of color, excellent appearance (reduced roughness), softness and touchiness are proven as compared to Sample 2 corresponding to the cited art. Specifically, Sample 2 shows that the fineness of woven fabric fiber layer of 1.05 is outside of the claimed range and also the fineness of the woven fabric fiber layer is larger than that of the non-woven fabric fiber. Therefore, Sample 2 is in contrast to the claimed ranges. By this outside range, Sample 2 exhibits inferior properties to Sample 1 in terms of color, softness, touchiness and roughness (appearance). See the November 20, 2007 Declaration at page 3 and Exhibit (Actual Samples 1 and 2). Also, in the November 20, 2007 Declaration, the stiffness and elongation of Samples 3 and 5 having a fineness of 1.0 denier like the cited art showed larger than those of Samples 2 and 4 having a fineness of 0.06 denier of the claimed invention. Accordingly, these superior effects of the claimed invention cannot be obtained with Michocuchi or Honda's ranges. Thus, the claimed fineness is beyond routine skill in the art.

If the cited art would expect these improved results, Mizoguchi or Honda would have had such an explicit disclosure as to denier values. However, the cited art remains silent about them and this distinction is beyond those of ordinary skill in the art. Thus, Applicants submit again that the claimed invention must be viewed as a selection invention by choosing specific

conditions (the claimed range of woven fabric layer and range relationship between the two layers) which give superior results.

Since none of the cited references relied upon by the Examiner including Mizoguchi, Honda, Minemura, Nakagawa, Ikeda and Okamoto, either alone or in combination, recognize the features of the present invention as discussed hereinabove, any possible combination of the cited references relied upon by the Examiner cannot possibly teach or suggest the present invention without reconstructing the teachings of the references in view of the Applicants' own disclosure.

As discussed above, the present invention is distinct from the cited art in that none of the references relied upon by the Examiner, either alone or in combination.

Accordingly, in view of the remarks, reconsideration of the rejections and allowance of all of the claims of the present application are respectfully requested.

Conclusion

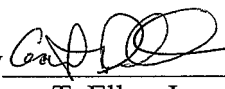
In view of the above remarks, Applicants believe that pending application is now in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Garth M. Dahlen, Ph.D., Esq. (#43,575) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

Dated: February 4, 2010

Respectfully submitted,

By  GARTH M. DAHLEN
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